

--- Identification Data ---

User: David Dajc
 Project: Loudon Cnty Maint Center
 Subtitle: Pond Evaluation
 State: Virginia
 County: Loudoun
 Filename: P:\PROJECT\LoudounCounty\MaintenanceCenter\Engineering\Ponds.w55
 Date: 9/10/2002
 Units: English
 Areal Units: Acres

--- Sub-Area Data ---

| Name | Description | Reach | Area(ac) | RCN | Tc |
|---------------------|--------------------|--------|----------|-----|-------|
| Pond A | Drains to Dry Pond | Outlet | 13.44 | 88 | 0.104 |
| Pond B | Drains to Wet Pond | Outlet | 50.56 | 91 | 0.238 |
| Total area: 64 (ac) | | | | | |

--- Storm Data ---

Rainfall Depth by Rainfall Return Period

| Return Period | 2-Yr (in) | 5-Yr (in) | 10-Yr (in) | 25-Yr (in) | 50-Yr (in) | 100-Yr (in) | 1-Yr (in) |
|---------------|-----------|-----------|------------|------------|------------|-------------|-----------|
| | 3.5 | 4.5 | 5.25 | 6.0 | 6.5 | 7.5 | 3.0 |

Storm Data Source: User-provided custom storm data
 Rainfall Distribution Type: Type II
 Dimensionless Unit Hydrograph: <standard>

Sub-Area Time of Concentration Details

Sub-Area Identifier/ Length (ft) Flow Manning's n Slope (ft/ft) Area (sq ft) Wetted Perimeter (ft) Velocity (ft/sec) Travel Time (hr)

| Sub-Area Identifier/ | Length (ft) | Flow | Manning's n | Slope (ft/ft) | Area (sq ft) | Wetted Perimeter (ft) | Velocity (ft/sec) | Travel Time (hr) |
|-----------------------|-------------|--------|-------------|---------------|--------------|-----------------------|-------------------|------------------|
| Pond A SHEET | 30 | 0.3333 | | | | | | 0.028 |
| SHALLOW | 180 | 0.0200 | 0.025 | | | | | 0.017 |
| CHANNEL | 1000 | | | | | | 8.000 | 0.035 |
| CHANNEL | 430 | | | | | | 5.000 | 0.024 |
| ===== | | | | | | | | |
| Time of Concentration | | | | | | | | 0.104 |

| | | | | | | | | |
|-----------------------|------|--------|-----|--|--|--|-------|-------|
| Pond B SHEET | 50 | 0.3400 | | | | | | 0.029 |
| SHALLOW | 90 | 0.0250 | 3.5 | | | | | 0.008 |
| CHANNEL | 510 | | | | | | 8.000 | 0.018 |
| CHANNEL | 1220 | | | | | | 1.848 | 0.183 |
| ===== | | | | | | | | |
| Time of Concentration | | | | | | | | 0.238 |

Sub-Area Land Use and Curve Number Details

| Sub-Area Identifier | Land Use | Hydrologic Soil Group | Sub-Area (ac) | Curve Number | |
|--------------------------------------|--------------------------------------|--------------------------------------|---------------|--------------|----|
| Pond A | Open space; grass cover > 75% | (good) D | 1.92 | 80 | |
| | Paved parking lots, roofs, driveways | B | .64 | 98 | |
| | Paved parking lots, roofs, driveways | B | .64 | 98 | |
| | Brush - brush, weed, grass mix | (good) B | 1.28 | 48 | |
| | Brush - brush, weed, grass mix | (good) D | 1.28 | 73 | |
| | Total Area / Weighted Curve Number | | | | 88 |
| | ===== | | | | == |
| | Pond B | Open space; grass cover > 75% | (good) C | 1.92 | 74 |
| | | Open space; grass cover > 75% | (good) D | 11.52 | 80 |
| | | Paved parking lots, roofs, driveways | C | 1.28 | 98 |
| Paved parking lots, roofs, driveways | | D | .64 | 98 | |
| Commercial & business | | C | .64 | 94 | |
| Commercial & business | | D | 32.64 | 95 | |
| User defined urban (Click button or | | D | 1.28 | 98 | |
| Woods | | (good) D | .64 | 77 | |
| Total Area / Weighted Curve Number | | | | 91 | |
| ===== | | | | == | |